

# Index

- AERIAL GLOBE TROTTER.** Captain Leigh Wade, 86-93.
- AERIAL PHOTOGRAPHY, ITS DEVELOPMENT AND FUTURE.** Sherman M. Fairchild, 49-55.
- Aerial photography:** early cameras, 49; Fairchild Aviation Corporation, 49, 53; improvements, 51, 731; mapping, 50, 51; Model-K8, 49.
- Aerodynamics,** development of, 20.
- AERONAUTICAL, TWO SCIENCES—MEDICAL AND.** Arthur La Roe, 124-9.
- AERONAUTICAL EDUCATION.** Alexander Klemin, 20-2.
- Aeronautics.** *See* aviation, education, medical science, meteorology.
- Air Commerce Act,** 56, 111, 141.
- Air Corps Reserve,** 25.
- AIR MAIL, THE.** W. Irving Glover, 43-8.
- AIR REGULATIONS.** William P. MacCracken, Jr., 118-23.
- Air Regulations:** Air Commerce Act, 118; approved type certificate, 119; marks, symbols, descriptions, 121; navigation facilities, 122; requirements for pilots, 120; requirements in operation, 121; traffic rules, 122; violations, 119.
- Air traffic rules,** 122.
- AIR TRANSPORT, AMERICAN.** Archibald Black, 68-70.
- Air transport:** American operations, 69; costs, 70; origin, 68; passenger service, 69; recent developments, 68. *See* economic aspects.
- AIR TRANSPORTATION.** Anthony H. G. Fokker, 182-7.
- AIRCRAFT ENGINEERING.** T. P. Wright, 27-33.
- AIRCRAFT MERCHANDISING PLANS OF THE ALEXANDER AIRCRAFT COMPANY.** J. Don Alexander, 137-40.
- AIRPLANE ENGINE, THE STORY OF THE.** George F. McLaughlin, 34-7.
- AIRPLANE, THE.** Dr. Michael Watter, M.S.A.E., 7-13.
- AIRPLANES IN NATIONAL DEFENSE.** General William Mitchell, 38-42.
- Airplane.** *See* aviation, design, engineering, flight, heavier-than-air, lighter-than-air, mechanical construction, power plant.
- Airplanes:** defined, 79; dusting, 74.
- AIRPORTS AND LANDING FIELDS.** William E. Arthur, 56-67.
- Airports:** Buildings, 65; cost, 65, 66, 67; diagrams, 60, 61; flood light, 58; hangar and passenger station, 58; layout, 62; lines, 56, 57, 60; necessity for, 56; new and proposed routes, 57; proposed New York University airport, 62; site, 60.
- Airships,** defined, 79.
- Airways,** 72, 78.
- Airworthiness:** dangers eliminated, 152; false publicity, 151; fearful public, 151; progress in U. S., 157; safeguards, 155.
- AIRWORTHY, ARE WE?** Lieutenant Donald Duke, 151-8.
- ALEXANDER, J. DON.** Aircraft Merchandising Plans of the Alexander Aircraft Company, 137-40.
- AMERICAN AIR TRANSPORT.** Archibald Black, 68-70.
- ARE WE AIRWORTHY?** Lieutenant Donald Duke, 151-8.
- Army Air Corps Flying School,** 25.
- ARTHUR, WILLIAM E.** Airports and Landing Fields, 56-67.
- AVIATION INSURANCE.** Charles H. Holland, 130-6.
- Aviation:** *See* air Commerce, air regulations, air transport, airports, airworthiness, commerce, commercial aviation, development, economic aspects, education, engines, first trans-Atlantic flight, insurance, licenses, lighter-than-air, medical science, merchandising, meteorology, national defense, navigation, pilots, Post Office, round-the-world, routes.
- BLACK, ARCHIBALD.** American Air Transport, 68-70.
- Casualties,** 125-6.
- CLEARING THE AIR FOR COMMERCE.** W. Jefferson Davis, 141-50.
- Climate.** *See* meteorology.
- COMMERCE, CLEARING THE AIR FOR.** W. Jefferson Davis, 141-50.
- Commerce:** Act of Congress, 141, 142; Connecticut law, 144; disputes, 148, 149; laws abroad, 145; need for federal laws, 144; regulations, 143; United States and the International Convention, 147.
- COMMERCIAL AVIATION IN THE UNITED STATES, ASPECTS OF.** George B. Post, 71-8.
- Commercial aviation:** classes, 77; dusting, 74; early airways, 72; history, 71, 72; photography, 73; pioneers, 75; present era, 75, 76; routes, 78; struggles, 72.
- Connecticut law,** 144.
- Curtiss Flying Service, Inc.:** future plans, 25; work of, 25.
- DAVIS, W. JEFFERSON.** Clearing the Air for Commerce, 141-50.
- Defense.** *See* national.

- Department of Commerce regulations, 24.  
 Design: body, 11; engine, 10, 14; landing gears, 11, 12; power plant, 10; procedure as to wings, 7, 8.  
 Development, 27, 28.  
 Disasters, 79, 80.  
 Dispute, 148, 149.  
**DUKE, LIEUTENANT DONALD.** Are We Air-worthy? 151-8.
- ECONOMIC ASPECTS OF AIRCRAFT TRANSPORTATION, SOME.** Stephen B. Sweeney, 159-81.  
 Economic aspects: air mail, 177-8; demand, 169; development, 161; future, 179-81; operating costs, 167; subsidy, 161, 64; various nations, 170-7.  
**EDUCATION, AERONAUTICAL.** Alexander Klemm, 20-2.  
 Education: aerodynamics, 20; grants to, 22; plans, 22; schools, 21, 22; structure of aircraft, 21; university training, 20.  
**ENGINE, THE STORY OF THE AIRPLANE.** George F. McLaughlin, 34-7.  
 Engines: advance dependent on, 35; Anzani, 35; Benz, 35; Diesel, 36; early types, 34; Gnome, 35; Mercedes, 35; Napier "Club," 36; Packard, 36; requirements for, 36; Wasp, 36; Whirlwind, 36.  
**ENGINEERING, AIRCRAFT.** T. P. Wright, 27-33.  
 Engineering: aeronautical, 30; civil, 31; definitions, 37; general, 31; history, 27-8; materials, 31; mechanical, 31; naval architecture and, 29; present state of the art, 29.  
 Equipment, 32.  
 Europe, engines, 36.
- FAIRCHILD, SHERMAN M.** Aerial Photography, Its Development and Future, 49-55.  
 First Trans-Atlantic flight: difficulties, 96; eastward, 94; experiences, 96-100; fog, 96; sentiment, 94; triumphs, 98-100; with the *NC-4*, 95-6.  
**FLIGHT, THE FIRST.** Jessie E. Horsfall, 14-19.  
**FLIGHT, THE FIRST TRANS-ATLANTIC.** Lieutenant Walter Hinton, 94-100.  
 Flight: ancient stories, 1; difficulties, 17, 18; eighteenth century, 4; first recognition, 4; Francisco Lana's study, 3; history, 1-6; Leonardo Da Vinci's contribution, 3; middle ages, 2; tests, 17, 18; *see also* aviation, first trans-Atlantic flight, round-the-world flight.  
 Flight surgeon, 124-9.  
**FLY, LEARNING TO.** Casey Jones, 23-6.  
 Flying safe, 124.  
**FOKKER, ANTHONY H. G.** Air Transportation, 182-7.  
 Forecasts, 115.
- Germany, 80, 81.  
**GLOVER, W. IRVING.** The Air Mail, 43-8.
- GOLDSBOROUGH, BRICE.** Navigating the Plane, 101-6.  
 Great Circle Track, 104.  
**GREGG, WILLIS RAY.** Meteorology and Its Application to Flying, 107-17.  
 Guggenheim Foundation, 22.
- Hazards, 82.  
 Heavier-than-air craft, defined, 79.  
**HINTON, LIEUTENANT WALTER.** The First Trans-Atlantic Flight, 94-100.  
**HOLLAND, CHARLES H.** Aviation Insurance, 130-6.  
**HORSFALL, JESSIE E.** The First Flight, 14-19.  
**HUMAN FLIGHT THROUGHOUT THE AGES.** Adrian Van Muffling, 1-6.
- Insect control by airplane dusting, 74.  
 Instruments, 103, 106.  
**INSURANCE, AVIATION.** Charles H. Holland, 130-6.  
 Insurance: all-in-one coverage, 131; causes of loss, 134; effect of protection on flying, 133; history of transportation, 130; opinion of practical airmen, 136; rates, 131; types of losses, 132, 133.  
 International Convention and the United States, 147.
- JONES, CASEY.** Learning to Fly, 23-6.
- KLEMM, ALEXANDER.** Aeronautical Education, 20-2.
- LANDING FIELDS, AIRPORTS AND.** William E. Arthur, 56-67.  
**LA ROE.** Two Sciences—Medical and Aeronautical, 124-9.  
 Landing gears, 11.  
**LEARNING TO FLY.** Casey Jones, 23-6.  
 Licenses: mechanics, 121; numbers for aircraft, 121; pilots, 120.  
**LIGHTER-THAN-AIR CRAFT.** P. W. Litchfield, 79-85.  
 Lighter-than-air craft: dangers, 82; defined, 79; developments, 83, 84; Germany, 80; hazards, 82; triumphs of, 82.  
 Lighting, 59, 63, 64.  
**LITCHFIELD, P. W.** Lighter-than-Air Craft, 79-85.
- MACCRACKEN, WILLIAM P., JR.** Air Regulations, 118-23.  
 Mail. *See* Post Office.  
 Mathematical bases, 16.  
**McLAUGHLIN, GEORGE F.** The Story of the Airplane Engine, 34-7.  
 Mechanics licenses, 121.  
 Mechanical construction, 7-13.

MEDICAL AND AERONAUTICAL, TWO SCIENCES—  
Arthur La Roe, 124-9.

Medical science: aviation medicine, 126; analysis of casualties, 125, 126; flight surgeon, 127; makes possible conquering air, 129; relation to aeronautics, 124-9.

MERCHANDISING PLANS OF THE ALEXANDER AIRCRAFT COMPANY, AIRCRAFT. J. Don Alexander, 137-40.

Merchandising: advantage, 140; convincing the public, 137; instruction, 138; purchase plans, 139; representatives, 139; selling organization, 138.

METEOROLOGY AND ITS APPLICATION TO FLYING. Willis Ray Gregg, 107-17.

Meteorology: aiding aeronautics, 107; climatic characteristics, 109; early interests, 107; expansion of service, 112; forecasts, 115; future, 116, 117; kites, 116; kite meteorograph, 110; pilot balloon stations, 112; theodolite, 114.

MITCHELL, GENERAL WILLIAM. Airplanes in National Defense, 38-42.

NATIONAL DEFENSE, AIRPLANES IN. General William Mitchell, 38-42.

National Defense: ancient and modern methods, 38; defined, 38; improvements, 38; in the air, 39, 40, 41; on the sea, 39.

NAVIGATING THE PLANE. Brice Goldsborough, 101-6.

Navigation, art of, 101; compass, 103; ground work, 102; instruments, 103; meteorological information, 105.

Night flying, 45.

Passenger services, 69.

Pilot balloon stations, 112.

Pilots: requirements, 120; scarcity of, 25; training, 23, 24.

PLANE, NAVIGATING THE. Brice Goldsborough, 101-6.

POST, GEORGE B. Aspects of Commercial Aviation in the United States, 71-8.

Post Office: Service accomplishments, 48; growth, 44; history, 43; night flying, 45; planes used, 43, 44; rates, 44; routes, 43, 47.

Power plant, 10.

Propellers, use of, 14, 15.

Radio stations, 47.

Regulations. *See* air.

Research, 32.

Round-the-world: Atlantic flight, 91; Aleutian Islands, 87; China, 89; Constantinople, 91; end of journey, 93; experiences encountered, 87; fogs and icebergs, 92; India, 91; Japan, 89; living accommodations, 88; Malay peninsula, 90; Paris, 91; preliminary work, 86; start-off, 86.

Routes, 43, 178.

Safeguards, 155.

Scientific aspects. *See* engineering.

Structure, instruction in, 21.

SWEENEY, STEPHEN B. Some Economic Aspects of Aircraft Transportation, 159-81.

Theodolite, Weather Bureau, 114.

Training. *See* pilots.

Triumphs, 82.

TWO SCIENCES—MEDICAL AND AERONAUTICAL. Arthur La Roe, 124-9.

United States: advantages and disadvantages, 84; International Convention, 147; meteorology work, 107-17; progress in, 157.

VAN MUFFLING, ADRIAN. Human Flight Throughout the Ages, 1-6.

WADE, CAPTAIN LEIGH. Aerial Globe Trotting, 86-93.

WATTER, DR. MICHAEL. The Airplane, 7-13.

Weather difficulties, 44.

Weather. *See* hazards, meteorology.

WRIGHT, T. P. Aircraft Engineering, 27-33.

Wright, Wilbur and Orville, 14-9.